

REMARKS

The present application relates to a detector constructed from electrically conducting fabric and configured to present a varying electrical characteristic in response to a mechanical interaction. The detector comprises at least one conducting layer having conductive yarns and non-conductive yarns machined therein and a plurality of electrical conductors connected to the conductive yarns to electrically group the conductive yarns to define a plurality of identifiable rows.

Claims 3 and 26 have been amended to overcome the informalities identified by the Examiner.

REJECTION UNDER 35 U.S.C. § 112

Claims 4, 27 and 37 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed.

It is submitted that the feature of "the second conductive layer has conductive yarn extending in a first direction and conductive yarn extending in a second direction, the first direction being different to the second direction", is disclosed in the application.

It is described on Page 34 Lines 7-11, Figure 19; that fabric layer 1901 may be conductive in both the warp and weft directions. The specification teaches that conductivity in a direction along a fabric layer is achieved by the use of conductive yarn extending in that direction; see Figures 1, 1A and 4 and the accompanying description, for example.

Independent Claims

Claims 1, 25, 35, 36 and 37 have each been amended to include the following feature:

“at least one identifiable row includes a plurality of lengths of conductive yarn in which one length of conductive yarn of the identifiable row is electrically isolated from another of said lengths of conductive yarn.”

Basis for this feature can be found on Page 6, Line 8 to Page 8, Line 13, Figures 1, 1A and 2, at least.

The combination of features of each claim is not disclosed or taught in any of the citations relied on by the Examiner.

Hence, it is submitted that claims 1, 25, 35, 36 and 37 are novel over the citations relied on by the Examiner.

Further, as described on Page 3, Lines 21-23, Page 6, Lines 21-23 and Page 11, Lines 14-23, at least, the disclosed construction of the electrically conducting fabric layer provides the layer with an ability to withstand a degree of flexing and folding. Hence, a manually operable flexible detector constructed from electrically conducting fabric can be fabricated using such layers.

This feature is not considered in any of the citations relied on by the Examiner.

It is submitted that claims 1, 25, 35, 36 and 37 are also inventive over the citations relied on by the Examiner.

Dependent Claims

Claims 2-23 each include the subject matter of claim 1 and claims 26-34 include the subject matter of claim 25. Hence, it is submitted that each of claims 2-23 and 26-34 is novel and inventive over the citations relied on by the Examiner.

REJECTION UNDER 35 U.S.C. § 102

Claims 25, 26, 28-30 and 33-36 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Braue (U.S. Pat. No. 3, 617,666). This rejection is respectfully traversed.

Claim 35 includes the feature of:

“said third conducting layer has a conductivity that increases as the degree of pressure applied by the mechanical interaction increase, thereby facilitating conducting between the first conducting layer and the second conducting layer during the mechanical interaction.”

This feature is utilized in the embodiment of the present invention detector in Figure 4, central layer 403 as described on Page 10, Lines 21-24.

Braue discloses an embodiment (Figures 5 and 6) having a third conducting layer (26), but there is no disclosure that this layer possesses the above feature.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-3, 5-13, 15-17, 20-23, 31 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Braue. This rejection is respectfully traversed.

The Examiner states that although Braue does not disclose a conductor at each end of a conductive row, it is considered that the utilization by the present invention detector of a conductor at opposite ends of a conductive row of a conducting layer enables the detector claimed to operate with functionality beyond that provided or envisaged by Braue.

As described on Page 12, Line 8 to Page 17, Line 13, Figures 6 and 7, at least, the provision of two conductors connected to a conductive row provides for a detector having

several modes of operation, which provide different indications of characteristics of mechanical interactions with the detector.

Claims 4, 27 and 37 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Braue in view of Larson (3,056,005). This rejection is respectfully traversed.

Claim 37 includes the feature of:

“said second conducting layer has conductive yarn extending in a first direction and conductive yarn extending in a second direction, said first direction being different to said second direction.”

This feature is utilized in the embodiment of the present invention detector as shown in, and described with reference to, Figure 19.

The Examiner states that although Braue does not disclose a second conducting layer having this feature, Larson does.

The Examiner comments that it would have been obvious to use a second conducting layer having this feature to increase the electrical contact between the two conducting layers.

It is considered that the reason or motivation chosen by the Examiner for combining the two documents is conjecture. The motivation for this construction of the second layer is derived from the second conducting layer of the detector of the above embodiment comprising a single conductive band.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 08-0750, under Order No. 9637-000034/US from which the undersigned is authorized to draw.

Dated: November 22, 2005

Respectfully submitted,

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